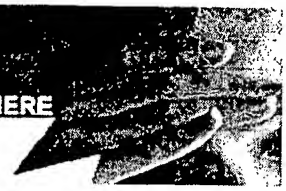

About

The Proper Use of Belts During Weight Training

From Elizabeth Quinn,Your Guide to Sports Medicine.

When are they necessary? When are they harmful?

The practice of wearing weightlifting belts used to be limited to Olympic weightlifting and powerlifting. In recent years, however, even recreational lifters of varying degrees of skill and experience are wearing belts. Is such a device necessary for recreational lifting? If so, what ar the proper ways to use a belt? What are improper ways to use a belt? What ill effects can result from its misuse?

A weightlifting belt has two main purposes. It reduces stress on the lower back while the person is lifting in an upright position and prevents bac hyperextension during overhead lifts. A belt reduces low back stress by compressing the contents of the abdominal cavity. This increases the intra-abdominal pressure (IAP), providing more support in front of the bones of the lower back. This allows the spinal erector muscles, which would normally provide this support of the lower back, to produce less force during the lift. Another benefit of increased IAP is a reduction in the amount of spinal shrinkage (lower back compression) a lifter may experience during circuit weight training. Some belts have a wide back and a narrow front. Therefore, it would be advisable to wear the belt backwards if increased IAP is desired, as the area gives the contents of the abdominal cavity more surface area to push against.

The belt prevents back hyperextension by forming a rigid wall around the lower torso, connecting the rib cage to the hip. This not only limits bac movement, but it also prevents sideward bending and twisting. A powerlifting-style belt that is the same width all the way around would be ideal for this purpose. Otherwise, a conventional belt can be worn in the usual manner with the wide part of the belt in the back.

Wearing a belt also causes the lifter to be more aware of the position of his or her back. This is because the physical sensation of a belt agains the skin provides additional information prompting the lifter to consider his or her back position and what muscles must be activated to maintain good posture. In this case, the belt does not need to be worn too tightly for an effect. Some lifters report feeling more secure and confident whil wearing a belt even if IAP and muscle activity are unaffected.

However, a belt must be worn tightly to maximize its usefulness. This is physically taxing and should not be done for long periods of time. Research has shown that wearing a tight belt during exercise can elevate blood pressure. For this reason, belts should only be used on two primary occasions. The first is when performing maximal or submaximal lifts in exercises such as the squat or deadlift, in which the weight is supported by the lifter's back. The second is while performing exercises, such as the military press, which may cause the back to hyperextend. The belt should be loosened to allow blood pressure to return to normal levels in between sets.

Weightlifting belts are not necessary for other types of weight training exercises in which the spinal erectors do not work against heavy resistance. For example, the use of a belt will not affect performance on exercises such as the lateral pull down and leg extension. Belts also have little or no effect on performance weight loads that are fairly light . However, elevated blood pressure that results from using a belt can increase over time, even when fairly light work or aerobic activity is performed. Lifters with heart disease and blood pressure problems should exercise caution when wearing a tight belt for long periods of time.

Constantly wearing a belt can also cause decreased strength development in abdominal muscles. Electromyographic research has found that there are lower levels of muscle activity in abdominal muscles when a belt is worn while lifting. The muscles that would normally keep the abdomen stabilized are inhibited when a belt is used, which could result in weaker abdominal muscles in the long run.

Strong abdominal muscles are important in maintaining trunk stability in the absence of a support belt. Studies have shown that substantial IAP can be achieved by simply holding oneUs breath while lifting. It is also important not to be too dependent on belts while training as they may nc be admissible during competition.

Weightlifting belts can help support the back by increasing intra-abdominal pressure and preventing back hyperextension. They are most effective when used for maximal or submaximal lifts in which the spinal erector muscles work against heavy resistance. However, many ill effects, such as high blood pressure and abdominal muscle weakness, may result from improper use of weightlifting belts. They should be use sparingly in training.